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Makoto Izawa

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EXAMINER

GELAGAY, SHEWAYE

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/710,987	Applicant(s) IZAWA ET AL.	
	Examiner SHEWAYE GELAGAY	Art Unit 2437	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2 and 4-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the Applicant's amendment filed on September 23, 2009.
2. Claims 1-2, 4-14, 16- and 18 have been amended.
3. Claims 1-2 and 4-18 are pending.

Response to Arguments

4. Applicant's arguments filed on 9/23/09 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. Claims 1-2, 4-9 and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (hereinafter Yamaguchi) US Patent Number 5,604,807 in view of Keromytis et al. (hereinafter Keromytis) "Transparent Network Security Policy Enforcement", USENIX 2000 and in view Inada et al. (hereinafter Inada) US 6,775,769 and in view of Colligan et al. (hereinafter Colligan) US 6,415,031.

Art Unit: 2437

3. As per claims 1, 5, 14 and 18:

Yamaguchi teaches a central encryption management system, comprising:
an encryption apparatus configured to be connected between a plurality of data communications terminals, (Figure 12, item 53, 54 and 55)

the encryption apparatus to perform at least one of an encrypting process or a decrypting process on data to terminate encryption-based security between communications terminals having encrypting capability and non-encrypting capability; (Figure 12, item 76) and

a manager terminal to input information into the encryption apparatus and into each of the plurality of communications terminals having encrypting capability; (Figure 12, item 51; Figure 13; col. 3, line 62-col. 4, line 20; col. 12, lines 50-64; col. 13, line 60-col. 14, line 12)

wherein the encryption apparatus further includes outputting data received on one of a plurality of ports of the encryption apparatus to another port of the encryption apparatus, after the encrypting or decrypting process is performed. (Figure 12, item 51; Figure 13; col. 3, line 62-col. 4, line 20; col. 12, lines 50-64; col. 13, line 60-col. 14, line 12)

Yamaguchi does not explicitly disclose the information including an indication of whether or not data packets are to be discarded between specific communication terminals after the data packets have been received and a time period for encryption; and wherein the encryption apparatus further includes a bridge to output data received

Art Unit: 2437

on one of a plurality ports of the encryption apparatus to another port of the encryption apparatus, without any routing process.

Keromytis in analogous art, however, teaches a bridge to output data received on one of a plurality ports of the encryption apparatus to another port of the encryption apparatus, without any routing process. (2.1 Layer-3Filtering; 2.2 Layer-2 Filtering; 2.4 Bridge Security; 3.Bridging and IPsec) Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the system disclosed by Yamaguchi with Keromytis in order to provide transparent IPsec gateway capability for a host or even a network wherein the security gateway can act as a security policy enforcer, ensuring that incoming and outgoing packets are adequately protected, based on system or network policy. (1. Introduction; Keromytis)

Both references do not explicitly disclose information including whether or not data packets are to be discarded between specific terminals after the data packets have been received. Inada in analogous art, however, discloses information including whether or not data packets are to be discarded between specific terminals after the data packets have been received. (col. 5, line 25- col. 6, line 65; col. 15, line 25-col. 16, line 56; col. 17, lines24-63) Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the system disclosed by Yamaguchi and Keromytis with Inada in order to manage the operation of the cryptographic apparatus by processing a management packet for managing the cryptographic apparatus from another machine connected to the network. (col. 17, lines 58-63; Inada)

Art Unit: 2437

None of the references explicitly disclose input information including a time period for encryption. Colligan in analogous art, however, discloses inputting information including a time period for encryption. (col. 8, line 7-18; col. 8, line 65-col. 9, line 5) Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the system disclosed by Yamaguchi, Keromytis and Inada with Colligan in order to perform scheduling of the encryption by the encryption coordinator thereby controlling times when a particular content is scheduled to be encrypted. (col. 8, lines 11-13; Colligan)

As per claims 2 and 15:

The combination of Yamaguchi, Keromytis, Inada and Colligan teaches all the subject matter as discussed above. In addition, Yamaguchi further discloses a central encryption management system the encryption apparatus configured to receive and retransmit data in the form of encrypted data from and to one of the plurality of communications terminals having the encrypting capability, and the encryption apparatus is configured to receive and retransmit the data in the form of non-encrypted data from and to one of the plurality of communications terminals having no encrypting capability. (col. 12, lines 50-64)

As per claims 4, 6 and 16:

The combination of Yamaguchi, Keromytis, Inada and Colligan teaches all the subject matter as discussed above. In addition, Yamaguchi further discloses a central encryption management system wherein the encryption apparatus further includes a storage to store the information inputted from the manager terminal, the inputted

Art Unit: 2437

information being used when controlling the encrypting process and the decrypting process, and the encryption apparatus controls the encrypting process and the decrypting process by comparing the information stored in the storage with header information of a data packet of the data received through one of the plurality of ports.

(col. 11, line 44-col. 12, line 45)

As per claim 7:

The combination of Yamaguchi, Keromytis, Inada and Colligan teaches all the subject matter as discussed above. In addition, Yamaguchi further discloses a central encryption management system wherein the information comprises at least one of information associated with the presence or absence of encryption or decryption process, the availability of packet communications, an encryption level, a time period to perform encryption, a encryption policy or an encryption key. (Figure 12, item 51; Figure 13; col. 3, line 62-col. 4, line 20; col. 12, lines 50-64; col. 13, line 60-col. 14, line 12)

As per claim 8:

The combination of Yamaguchi, Keromytis, Inada and Colligan teaches all the subject matter as discussed above. In addition, Inada further discloses wherein the at least one of the plurality of communications terminals are inside a secured network.

(Figure 12)

As per claim 9:

The combination of Yamaguchi, Keromytis, Inada and Colligan teaches all the subject matter as discussed above. In addition, Inada further discloses wherein the at

Art Unit: 2437

least one of the plurality of communications terminals is outside secured network.

(Figure 12)

As per claim 12:

The combination of Yamaguchi, Keromytis, Inada and Colligan teaches all the subject matter as discussed above. In addition, Yamaguchi further discloses a central encryption management system wherein the plurality of communications terminals are arranged in a plurality of local area networks. (Figure 12, item 51; Figure 13; col. 3, line 62-col. 4, line 20; col. 12, lines 50-64; col. 13, line 60-col. 14, line 12)

As per claim 13:

The combination of Yamaguchi, Keromytis, Inada and Colligan teaches all the subject matter as discussed above. In addition, Yamaguchi further discloses a central encryption management system wherein comprising a plurality of manager terminals, each of the plurality of manager terminals to manage encryption and decryption settings in the communications terminals having encrypting capabilities in at least one of the plurality of local area networks. (Figure 12, item 51; Figure 13; col. 3, line 62-col. 4, line 20; col. 12, lines 50-64; col. 13, line 60-col. 14, line 12)

As per claim 17:

The combination of Yamaguchi, Keromytis, Inada and Colligan teaches all the subject matter as discussed above. In addition, Keromytis further discloses performing an encrypting process or a decrypting process on data received at one of the plurality of ports after passing through a data link layer and a physical layer; and outputting encrypted or decrypted data from another of the plurality of ports through a data link

Art Unit: 2437

layer and a physical layer associated with the other port without passing said data to a network layer in which routing between networks are controlled. (2.1 Layer-3Filtering; 2.2 Layer-2 Filtering; 2.4 Bridge Security; 3.Bridging and IPsec)

4. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (hereinafter Yamaguchi) US Patent Number 5,604,807 in view of Keromytis et al. (hereinafter Keromytis) "Transparent Network Security Policy Enforcement", USENIX 2000 and in view Inada et al. (hereinafter Inada) US 6,775,769 and in view of Colligan et al. (hereinafter Colligan) US 6,415,031 and in view of Doiron et al. (hereinafter Doiron) US 5,481,610.

As per claim 10:

The combination of Yamaguchi, Keromytis, Inada and Colligan teaches all the subject matter as discussed above. None of the combination cited explicitly disclose wherein the encryption apparatus comprises a data path for a connected terminal and performs the encryption process or the decryption process on data received or transmitted on each data path using a different encryption key associated with the connected terminal. Doiron in analogous art, however, discloses wherein the encryption apparatus comprises a data path for a connected terminal and performs the encryption process or the decryption process on data received or transmitted on each data path using a different encryption key associated with the connected terminal. (col. 7, line 29-col. 8, line 33) Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the system disclosed by Yamaguchi, Keromytis and Inada and Colligan with Doiron in order to protect the data path by

Art Unit: 2437

preventing signal analysis thereby avoiding revealing the cryptographic keys. (col. 8, lines 21-23; Doiron)

As per claim 11:

The combination of Yamaguchi, Keromytis, Inada and Colligan teaches all the subject matter as discussed above. None of the combination cited explicitly disclose wherein the encryption apparatus comprises wherein the plurality of communications terminals having encrypting capability are connected to the encryption apparatus through an access point. Doiron in analogous art, however, discloses wherein the encryption apparatus comprises wherein the plurality of communications terminals having encrypting capability are connected to the encryption apparatus through an access point. (col. 3, lines 3-35) Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the system disclosed by Yamaguchi, Keromytis, Inada and Colligan with Doiron in order to provide a secure radio frequency communications system that encrypts and decrypts messages. (col.1, lines 5-10; Doiron)

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHEWAYE GELAGAY whose telephone number is (571)272-4219. The examiner can normally be reached on 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2437

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shewaye Gelagay/
Examiner, Art Unit 2437

/Emmanuel L. Moise/
Supervisory Patent Examiner, Art Unit 2437